*Jurnal Ilmu Kesehatan Vol. 12 No. 1 June 2024*
*E-ISSN : 2614-6703*

Received : 2024-02-21 Revised : 2024-04-20 Accepted : 2024-05-07 Published : 2024-06-28

# Profile of Childbearing Age Women Who are Willing and Unwilling to Undergo VIA (Visual Inspection with Acetic Acid) Examination at the Temindung Samarinda Community Health Center

**Dian Nurlita Anggraini[1], Handy Wiradharma[2], Sulistiawati[3]**

[1]Faculty of Medicine, Mulawarman University, Indonesia
[2]Department of Obstetrics and Gynecology, Mulawarman University, Indonesia
[3]Department of Anatomy, Mulawarman University, Indonesia
dn.anggraini05@gmail.com
Phone: +62 822 2609 1234

**Abstract:** Cervical cancer ranks as the eighth most common cancer in women. One method for early detection of precancerous cervical lesions is through Visual Inspection with Acetic acid (VIA). In Samarinda, the Temindung Community Health Center stands out as the sole community health center offering VIA examinations. This study aimed to profile childbearing-age women at the Temindung Samarinda Community Health Center who are willing or unwilling to undergo Visual Inspection with Acetic acid (VIA). The research employed an observational descriptive method. Purposive sampling was the technique used for selecting participants. The respondents comprised 81 childbearing-age women at the Temindung Samarinda Community Health Center. Key variables in this study included education level, knowledge about VIA, and whether they had received information about VIA from health workers. Data were collected through interviews using questionnaires from April to May 2016. The findings revealed that 72 respondents (88.89%) were willing to undergo VIA examination, while 9 respondents (11.11%) were not. Among those willing to undergo VIA, the majority were high school-educated, possessed good knowledge about VIA, and had not received information about VIA from health workers. Conversely, the majority of those unwilling to undergo VIA were mostly junior high school-educated, had good knowledge about VIA, and similarly had not received information about VIA from health workers.

**Keywords**: *Cervical Cancer, VIA, Childbearing-Age Women*

## 1. Introduction

Cervical cancer, a malignant tumor developing in the cervix located at the lowest part of the uterus and connected to the top of the vagina, is the eighth most common cancer worldwide. Recent statistics show that there were 662.301 new cases of cervical cancer globally and 348.874 deaths, making it the ninth leading cause of death among women in 2022 (Febriyanti Marantika et al., 2022; World Health Organization, 2022).

In Botswana, cervical cancer is the most prevalent type of cancer. In the Southern African region, the prevalence rate of cervical cancer is 15.5%. Within Botswana, this disease is the leading cause of cancer-related deaths among women in the 30-49 age group (Tapera et al., 2017).

In Indonesia, cervical cancer was the second most common cancer in 2018, with 348,809 cases reported. Alarmingly, the death rate from cervical cancer was 60% of the incidence rate, leading to 207.210 deaths. Without proper treatment, the death toll from cervical cancer is anticipated to escalate, potentially reaching 12 million by 2030 (Agustiansyah et al., 2021).

Visual Inspection with Acetic acid (VIA) is a screening method that involves applying 5% acetic acid to the cervix to reveal *acetowhite* lesions indicative of precancerous conditions. It has been promoted as an alternative to Pap smears in developing countries due to its low cost, straightforward administration, immediate results, and accuracy comparable to high-quality Pap smears (Aieshakhatun & Gudi, 2021; Azene, 2021; Claudi et al., 2022; Lohiya et al., 2022).

In Indonesia, approximately 8.3% of women aged between 30 and 50 years have participated in early detection of cervical cancer using the VIA method. The province with the highest coverage of early detection is West Sulawesi, with a rate of 37.6%, followed by Bangka Belitung at 37.6% and South Sumatra at 32.1%. On the other hand, the provinces with the lowest coverage for early detection are Papua at 0.6%, North Maluku at 1.2%, and Southeast Sulawesi at 1.7% (The Indonesian Ministry of Health, 2020).

Several factors contribute to the public's limited interest in cervical cancer screening. These include the availability of insurance coverage, accessibility to healthcare facilities, participation in social activities, and a lack of knowledge about the accuracy of screening methods, leading to doubts and fear about undergoing examinations (Agustiansyah et al., 2021). Additional influencing factors are economic status, education level, environmental influences, and psychological well-being (Lumban Raja et al., 2019).

VIA, a crucial maternal health program, is not extensively implemented in health centers. Based on data from the Indonesia Ministry of Health (2020), the early detection coverage for cervical cancer in East Borneo Province was a mere 3.9%. Among the 24 community health centers in Samarinda, none had conducted VIA procedures, except for the Temindung Community Health Center. This center achieved a coverage rate of only 0.046% in 2015, equating to 25 women out of the annual target of 54.947 childbearing-age women.

This research is focused on identifying the profiles of childbearing-age women who are willing or unwilling to undergo the VIA examination at the Temindung Samarinda Community Health Center. It aims to assess this based on their education level, knowledge of VIA, and the information they have received from healthcare providers.

## 2. Materials and Methods

This descriptive observational study was conducted at the Temindung Samarinda Community Health Center. Data collection was carried out using questionnaires distributed among the participants. The study involved a sample of 81 respondents, chosen through purposive sampling.

Inclusion criteria were set for married women visiting the Temindung Samarinda Community Health Center. The study also specified exclusion criteria, including women who were unwilling to participate in the research and those with contraindications for undergoing the VIA examination. Data was collected through questionnaires distributes to respondents from April to May 2016 and were analyzed using Microsoft Word 2010 also Microsoft Excel 2010.

The data were presented in tabular form. This study involved 81 childbearing-age women as respondents. The characteristics of the respondents were categorized into three groups: education level, knowledge about VIA, and information received from healthcare providers regarding VIA.

## 3. Results and Discussions

In this study, 81 childbearing-age women participated as respondents. Among them, 72 respondents (88.89%) were willing to undergo a VIA examination, whereas 9 respondents (11.11%) were unwilling.

Education levels in the study were classified into four categories: no schooling, primary education (encompassing elementary and junior high school), secondary education (including high school and vocational school), and tertiary education. The study included a table presenting the frequency distribution of educational levels among the childbearing-age women who were either willing or unwilling to undergo a VIA examination :

**Table 1.** Frequency Distribution of Childbearing-Age Women Based On Education Who Are Willing and Unwilling to do VIA Examinations at the Temindung Samarinda Community Health Center

| **Educations** | **Willing To Do VIA** | **%** | **Unwilling To Do VIA** | **%** |
|---|---|---|---|---|
| No Schooling | - | - | - | - |
| Elementary School | 11 | 15,27% | - | - |
| Junior High School | 14 | 19,44% | 6 | 66,67% |

| | | | | |
|---|---|---|---|---|
| High School/Vocational High School | 32 | 44,44% | 2 | 22,22% |
| Tertiary Education | 15 | 20,83% | 1 | 11,11% |
| **Total** | **72** | **100%** | **9** | **100%** |

According to the data presented, the majority of childbearing-age women willing to undergo a VIA examination possess a medium level of education, specifically high school or vocational school (SMA/SMK), with 32 respondents (44.44%). In contrast, the highest number of women unwilling to undergo a VIA examination have a basic level of education, which in this context is junior high school (SMP), with 6 respondents (66.67%).

The study further divides the respondents' level of knowledge into two categories: good and poor. An accompanying table in the study displays the frequency distribution of knowledge levels among childbearing-age women who are either willing or unwilling to undergo a VIA examination :

**Table 2.** Frequency Distribution of Childbearing-Age Women Based On Their Level of Knowledge Who Are Willing and Unwilling to do VIA Examinations at the Temindung Samarinda Community Health Center

| **Level of Knowledge** | **Willing To Do VIA** | **%** | **Unwilling To Do VIA** | **%** |
|---|---|---|---|---|
| Good (≥50%) | 71 | 98,61% | 6 | 66,67% |
| Poor (<50%) | 1 | 1,39% | 3 | 33,33% |
| **Total** | **72** | **100%** | **9** | **100%** |

In this study, good knowledge.

Additionally, the study categorizes the information received from healthcare providers into two groups: those who have received information and those who have not. A table in the study illustrates the frequency distribution of the information received from healthcare providers about VIA examinations among childbearing-age women, distinguishing between those willing and unwilling to undergo VIA examinations.

**Table 3.** Frequency Distribution of Information Obtained from Healthcare Providers Regarding VIA Examinations Childbearing-age women Who are Willing and Unwilling To Do VIA Examination at the Temindung Samarinda Community Health Center

| **Information Obtainde from Healthcare Providers** | **Have Received** | **%** | **Have Not Received** | **%** |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Have Received | 23 | 31,94% | 3 | 33,33% |
| Have Not Received | 49 | 68,05% | 6 | 66,67% |
| **Total** | **72** | **100%** | **9** | **100%** |

The research results show that 72 respondents (88.89%) are willing to undergo VIA examinations, while 9 respondents (11.11%) are unwilling. This suggests that the majority of childbearing-age women at the Temindung Samarinda Community Health Center are open to undergoing examinations, primarily for the early detection of cervical cancer. Awareness of the importance of early detection tests for cervical cancer, such as VIA examinations, can aid healthcare professionals in identifying individuals with positive or negative VIA results. In cases where the test results are positive, healthcare workers can promptly offer treatment services (Apriyanti & Adista, 2020).

Total of 9 respondents at the Temindung Samarinda Community Health Center were unwilling to undergo VIA examinations due to various reasons. These included fear of the examination, mistrust in the accuracy of VIA, insufficient time for self-examination, and discomfort with a male healthcare provider conducting the examination.

Many women avoid VIA examinations for several reasons. These can range from a lack of understanding of the VIA procedure, skepticism about its benefits, fear and embarrassment associated with the examination, to a sense of well-being that leads them to believe they do not need the test. This reluctance is particularly pronounced among childbearing women, who often have limited knowledge about the procedure, resulting in negative attitudes towards it (Fauza et al., 2019).

Most childbearing-age women who are willing to undergo VIA examinations tend to have completed secondary or vocational education, whereas those who are unwilling are predominantly in junior high school. Purnami (2023) established that knowledge significantly correlates with early detection of VIA in childbearing-age women, as indicated by a p-value <0.05 and a relationship coefficient strength of 0.36 (Purnami, 2023). Higher levels of education generally facilitate easier information absorption and greater knowledge acquisition (Prabowo & Zuhro' Ni'mah, 2023). Education is a key factor in influencing an individual's awareness and understanding of the importance of early detection of cervical cancer (Arina Manihuruk et al., 2021).

Women of childbearing age with a through understanding of cervical cancer are more inclined to consent to Visual Inspection with Acetic acid (VIA) examinations. Possessing

substantial knowledge about cervical cancer elevates awareness and minimizes risks, encouraging early examinations that can detect the disease at a nascent stage. The decision to participate in the VIA test is notably influenced by an individual's level of comprehension and awareness about the procedure (Izza et al., 2020; Rahmayani & Palimbo, 2022).

The research revealed that, despite having good knowledge about the VIA examination, 6 respondents (66.67%) were unwilling to undergo the test. Researchers identified several deterrents for childbearing-age women at the Temindung Samarinda Community Health Center regarding VIA examinations. These include fear of the examination, doubts about the test's accuracy, time constraints, and reluctance to be examined by male health workers. In a study by Wulandari (2021), it was found that some women out of VIA testing due to various beliefs, such as the notion that one VIA test is sufficient for a lifetime or simply a lack of interest, regardless of the test's cost. Moreover, some respondents expressed a lack of confidence in VIA examinations, while others were fearful due to hearsay from friends or neighbors. It is important to recognize that these attitudes can significantly affect the success of early detection efforts for cervical cancer through VIA examinations (Purbawaning Wulandari, 2021).

This aligns with research conducted by Sahr et al. (2018), which found that out of 14 childbearing-age women informants, 11 had not undergone the VIA test due to various barriers. These obstacles included a lack of knowledge about the benefits of VIA examinations, challenges in scheduling examination times, fear and embarrassment, and a general unawareness of the benefits of VIA examinations. The more inhibiting factors perceived, the less likely women are to seek out the examination, as these barriers can significantly diminish their desire to take action (Amalis Sahr et al., 2018).

Researchers noted that childbearing-age women visiting the Temindung Samarinda Community Health Center often haven't received information about VIA examinations from health workers. Instead, these women typically gather information about VIA from electronic and print media, despite not having received counseling on the topic from healthcare professionals. The level of knowledge and the attitudes shaping people’s behaviors are highly dependent on the ease of access to information. This information can be sourced from various channels such as electronic and print media, the internet, and through health workers who offer counseling, group broadcasts, and mass media services (Fauza et.al., 2019). The sources of information are pivotal in forming an individual's attitude and their decision-making process. Consequently, it is vital to deliver health education about the importance of early detection of cervical cancer, employing suitable persuasive media to heighten public awareness (Martina et al., 2023).

## 4. Conclusion

In this study, 71 childbearing-age women expressed willingness to undergo a VIA examination, while 9 respondents were not. The findings indicate that most women who consent to VIA testing have completed secondary education (SMA/SMK), possess good knowledge, and

have not received information from health workers. Conversely, women with basic education (junior high school), who also have good knowledge but lack information from health workers, are less inclined to participate in VIA testing.

To enhance the VIA coverage rate in Samarinda, it is crucial for health workers to undertake educational and motivational initiatives, encouraging more women to undergo VIA testing. It's important to note that the research focused on assessing respondents' willingness based on their stated intentions and did not investigate their actual behavior regarding undergoing VIA examinations.

## References


Agustiansyah, P., Rizal Sanif, Siti Nurmaini, Irfannuddin, & Legiran. (2021). Epidemiology and Risk Factors for Cervical Cancer. *Bioscientia Medicina : Journal of Biomedicine and Translational Research*, *5*(7), 624–631. https://doi.org/10.32539/bsm.v5i7.326

Aieshakhatun, N., & Gudi, S. N. (2021). A Comparative Study of Visual Inspection with Acetic Acid and Papsmear in Screening Cervical Intraepithelial Neoplasia. *Sch Int J Obstet Gynec*, *4*(6), 241–249. https://doi.org/10.36348/sijog.2021.v04i06.002

Amalis Sahr, L., Anitasari Indah Kusumaningrum, T., & Studi Kesehatan Masyarakat Universitas Muhammadiyah Surakarta, P. (2018). Persepsi dan Perilaku Wanita Usia Subur dalam Melakukan Tes Inspeksi Visual Asam Asetat. In *Jurnal Promosi Kesehatan Indonesia* (Vol. 13, Issue 2).

Apriyanti, I., & Adista, N. F. (2020). Analisis minat melakukan pemeriksaan iva test pada wanita usia subur sebelum dan sesudah penerapan penyuluhan di wilayah kerja puskesmas Singandaru. *Jurnal Riset Kebidanan Indonesia*, *4*(2), 32–37. https://doi.org/10.32536/jrki.v4i2.89

Arina Manihuruk, S., Tarigan Sibero Program Studi, J. S., Masyarakat, K., & Kesehatan Helvetia, I. (2021). *ANALISIS FAKTOR YANG MEMPENGARUHI PERILAKU IBU DALAM PELAKSANAAN TES IVA DI WILAYAH KERJA PUSKESMAS HUTARAKYAT KABUPATEN DAIRI TAHUN 2019*. https://jurnal.stikescendekiautamakudus.ac.id/index.php/JKM/article/view/686/303

Azene, G. K. (2021). Visual inspection with acetic-acid (VIA) service utilization and associated factors among women in Hawassa city, southern Ethiopia: a community based cross-sectional study. *Women's Midlife Health*, *7*(1). https://doi.org/10.1186/s40695-021-00065-4

Claudi, N., Utami, S., Keperawatan Fakultas Keperawatan Universitas Riau Jalan Pattimura No, F., & Pekanbaru Riau, G. G. (2022). EFEKTIVITAS PENYULUHAN KESEHATAN

TENTANG INSPEKSI VISUAL ASAM ASETAT DENGAN MEDIA VIDEO TERHADAP NIAT WUS UNTUK DETEKSI DINI KANKER SERVIKS. In *Riau Nursing Journal* (Vol. 1, Issue 1).

Fauza, M., & Kesehatan Masyarakat Universitas Andalas, F. (2019). Faktor yang Berhubungan dengan Deteksi Dini Kanker Serviks Metode IVA di Puskesmas Kota Padang. In *Jurnal Promosi Kesehatan Indonesia* (Vol. 14, Issue 1).

Febriyanti Marantika, O., Daiyah, I., Rizani, A., Program, M., Terapan, S., Poltekkes, K., Banjarmasin, K., & Jurusan, D. (2022). *FAKTOR-FAKTOR YANG BERPENGARUH TERHADAP KEIKUTSERTAAN WUS (WANITA USIA SUBUR) DALAM PEMERIKSAAN IVA (INSPEKSI VISUAL ASAM ASETAT) TAHUN 2021* (Vol. 3, Issue 1).

Izza, A., Mulawardhana, P., & Handayani, S. (2020). Knowledge, Attitude, and Culture Influence Visual Inspection with Acetic Acid Service Use. *Jurnal Ners*, *15*(2), 208–213. https://doi.org/10.20473/jn.v15i2.21250

Lohiya, A., Daniel, R. A., Kumar, D., Varghese, C., Rath, R. S., Abdulkader, R. S., & Nongkynrih, B. (2022). Effectiveness of Visual Inspection with Acetic Acid (VIA) Screening on Cervical Cancer Mortality and Incidence, A Systematic Review and Meta,Analysis. In *Asian Pacific Journal of Cancer Prevention* (Vol. 23, Issue 2, pp. 399–407). Asian Pacific Organization for Cancer Prevention. https://doi.org/10.31557/APJCP.2022.23.2.399

Lumban Raja, S., Wahara, W., & Ilmu Kesehatan Masyarakat Institut Kesehatan Helvetia, P. (2019). *FAKTOR YANG MEMENGARUHI MINAT WANITA USIA SUBUR DALAM DETEKSI DINI KANKER SERVIKS DENGAN METODE PEMERIKSAAN INSPEKSI VISUAL ASAM ASETAT DI PUSKESMAS TANJUNG MORAWA TAHUN 2018*. https://jurnal.mitrahusada.ac.id/emj/article/view/82

Martina, F., Choirunissa, R., & Kundaryanti, R. (2023). Faktor-Faktor Yang Berhubungan Dengan Minat Wanita Usia Subur (WUS) Dalam Melakukan Inspeksi Visual Asam Asetat (IVA) Di Puskesmas Pondok Betung Kota Tangerang Selatan. *MAHESA : Malahayati Health Student Journal*, *3*(1), 125–141. https://doi.org/10.33024/mahesa.v3i1.9206

Prabowo, E., & Zuhro' Ni'mah, U. (2023). *HUBUNGAN TINGKAT PENGETAHUAN WANITA USIA SUBUR DENGAN DETEKSI DINI KANKER SERVIKS METODE IVA DI DUSUN KARANGLO WILAYAH KERJA PUSKESMAS KEBAMAN*.

Purbawaning Wulandari, L. (2021). *FAKTOR-FAKTOR PENYEBAB RENDAHNYA CAPAIAN DETEKSI DINI KANKER LEHER RAHIM METODE IVA PADA WUS 30-50 TAHUN DI WILAYAH PUSKESMAS CISADEA Factors Causing The Low Achievement of Early Detection of Cervical Cancer with IVA Method for WUS 30-50 years in the Cisadea Health Center Area* (Vol. 10, Issue 1).

Purnami, L. A. P. N. P. E. M. P. S. D. P. D. P. K. (2023). PENGETAHUAN DAN DUKUNGAN SUAMI TERHADAP PEMERIKSAAN INSPEKSI VISUAL ASAM ASETAT (IVA) PADA WANITA USAI SUBUR DI MASA PANDEMI COVID 19. *Jurnal Keperawatan Dan Kesehatan Masyarakat*, *12*(1). https://jurnal.stikescendekiautamakudus.ac.id/index.php/stikes/article/view/1419/452

Rahmayani, D., & Palimbo, A. (2022). Faktor-Faktor yang Mempengaruhi Kesiapan Wanita Usia Subur dalam Pemeriksaan IVA Di UPT Puskesmas Pasar Sabtu. *Khatulistiwa Nursing Journal (KNJ)*, *4*(2), 64–72. https://doi.org/10.53399/knj.v4i0.paperID

Tapera, R., Manyala, E., Erick, P., Maswabi, T. M., Tumoyagae, T., Letsholo, B., & Mbongwe, B. (2017). Knowledge and attitudes towards cervical cancer screening amongst University

of Botswana female students. *Asian Pacific Journal of Cancer Prevention*, *18*(9), 2445–2450. https://doi.org/10.22034/APJCP.2017.18.9.2445

The Indonesian Ministry of Health. (2020). *PROFIL KESEHATAN INDONESIA TAHUN 2020*. https://www.kemkes.go.id/id/profil-kesehatan-indonesia-2020

World Health Organization. (2022). *Cancer site ranking*. https://gco.iarc.who.int/media/globocan/factsheets/cancers/23-cervix-uteri-fact-sheet.pdf